



16710  
1 September 2000

From: Commander, Eighth Coast Guard District  
To: Distribution

Subj: IMPLEMENTATION OF THE FTP CODE – ACCEPTANCE OF STRUCTURAL FIRE  
PROTECTION MATERIALS FOR U.S. FLAG SOLAS VESSELS

Ref: (a) COMDT (G-MSE-4) Distribution Memo 16710 PFM 1-00 of 11 August 2000

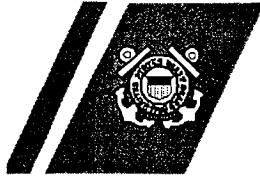
1. The United States is implementing the International Code for the Application of Fire Test Procedures (FTP Code).
2. Reference (a) was recently provided to each Officer in Charge Marine Inspection (OCMI). This G-MSE-4 policy file memorandum describes the Coast Guard policy regarding approval criteria for structural fire protection materials on vessels in domestic and international service. Reference (a) also discusses a phase-in period for vessels in international (SOLAS) service in which structural fire protection materials approved by both 46 CFR 164 and the FTP Code may be used. Vessels in international service (subject to SOLAS) with a keel laying date after 31 December 2003 will be required to use structural fire protection materials approved under the FTP Code.
3. Reference (a) is not yet available on the G-MSE-4 web site. The Eighth District will make reference (a) available on our next marine safety reference material CD-ROM update.
4. Eighth District OCMI's are encouraged to bring reference (a) to the attention of vessel designers and shipbuilders within their respective areas of responsibility. Direct questions on this matter to me at the above number.

  
W. H. DAUGHDRILL  
By direction

Dist: All Eighth District MSOs, MSU and MSDs

Copy: COMDT (G-MSE-4)

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# Memorandum

United States  
Coast Guard

Subject: **Implementation of the FTP Code - Acceptance of structural fire protection materials for US Flag SOLAS vessels**

Date: AUG 11 2000

16710  
PFM 1-00

From: Chief, Office of Design and Engineering Standards

Reply to: G-MSE-4  
Attn. of: Mr. R. Eberly  
202- 267-1444

To: Distribution

1. **PURPOSE:** This Policy File Memorandum provides guidance on the changeover from 46 CFR Subchapter Q approved structural fire protection materials to those approved under the International Code for the Application of Fire Test Procedures (FTP Code).
2. **BACKGROUND:** Enclosure (1) contains an explanation of the recent adoption of the International Code for the Application of Fire Test Procedures (FTP Code) as a mandatory part of the International Convention for the Safety of Life at Sea (SOLAS). Previously, SOLAS allowed Administrations to approve structural fire protection materials to their own national standards. Because of concerns with variations in the extent and severity of the differing approval testing procedures, it was agreed to establish a uniform, international set of testing procedures. Because the United States is signatory to the SOLAS Convention, the new FTP Code fire tests are required for materials being installed on US flag vessels that will have a SOLAS Safety Certificate.
3. **DISCUSSION:** The testing procedures in the FTP Code differ from those in 46 CFR Subchapter Q, Part 164 and cover items that were previously not tested. Materials that have a USCG type approval to the current standards in Part 164 do not satisfy the requirements of the FTP Code. As explained in the enclosure, those materials will continue to be accepted for an interim period. Some previously accepted structural fire protection materials, such as fire doors, are no longer permitted without testing. These materials must now be tested to the new FTP Code standards if they will be installed on SOLAS vessels.

Subj: Implementation of the FTP Code - Acceptance of structural fire protection materials for US Flag SOLAS vessels

4. **ACTION:** Enclosure (1) contains a detailed explanation of current structural fire protection material requirements for SOLAS ships, as well as domestic service vessels, including acceptability of materials during the transitional period ending 31 December 2003. Officers in Charge, Marine Inspection, are encouraged to bring this policy to the attention of appropriate individuals in the marine industry.



J. G. LANTZ

Dist: G-MOC  
MSC  
All CCGD (m)  
All OCMI's

## **IMPLEMENTATION OF THE FTP CODE**

Title 46 of the Code of Federal Regulations (46 CFR) has historically contained the requirements for structural fire protection materials and assemblies aboard U. S. flag vessels on both domestic and international routes. Type approval of structural fire protection materials for use onboard US flag vessels was issued to those materials that successfully passed the test procedures listed in 46 CFR Part 164. These materials were accepted for vessels on domestic as well as international voyages, because the International Convention for the Safety of Life at Sea (SOLAS) did not include fire testing procedures. Effective 1 July, 1998, the fire test methods in the International Code for the Application of Fire Test Procedures (FTP Code) became a mandatory part of SOLAS. This means that US flag ships that require a SOLAS safety certificate must now be built with structural fire protection materials that have been tested in accordance with the new FTP Code. The fire test procedures in the FTP Code cover more types of materials than 46 CFR, and require the completion of complex test protocols using different test apparatus. This change means that, except as detailed below, previously accepted materials may no longer be installed on SOLAS ships without being tested to the new fire test requirements in the FTP Code. US Flag vessels that are used on domestic routes have the option of using materials that have been tested to either standard.

The following summary of the current structural fire protection material requirements for both domestic and international (SOLAS) service vessels is provided to clarify this complex issue:

### **A. Domestic service vessels**

Three options are available for designers of vessels that engage solely in domestic voyages:

1. **Complete Compliance with Title 46, Code of Federal Regulations (46 CFR).**  
The vessel must be constructed in compliance with the structural fire protection arrangements and type approval requirements in the 46 CFR subchapter applicable to the vessel. The interpretations and construction standards in NVIC 9-97 continue to apply. Structural fire protection materials are required to have a USCG type approval to 46 CFR Part 164 standards.
2. **Partial Compliance with Title 46, Code of Federal Regulations (46 CFR).**  
The vessel must be constructed in compliance with the structural fire protection arrangements in the 46 CFR subchapter applicable to the vessel. The interpretations and construction standards in NVIC 9-97 continue to apply. Structural fire protection materials that are USCG type approved to the FTP Code may be used in lieu of 46 CFR Part 164 type approved materials, as follows:

<b>Material</b>	<b>46 CFR 164 Approval Series</b>	<b>Equivalent FTP Code Approval Series</b>
Deck coverings	164.006	(No equivalent)
Structural insulations	164.007	164.107
Bulkhead panels	164.008	164.108
Noncombustible materials	164.009	164.109
Continuous ceilings	164.010	164.110
Interior finishes	164.012	164.112

3. **Compliance with SOLAS and the FTP Code.**

The vessel may be constructed in compliance with the structural fire protection arrangements in Chapter II-2 of the SOLAS Convention using materials that are USCG type approved to the FTP Code. NVIC 9-97 does not apply. The interpretations listed in MSC Circular 847 may be used.

**B. International (SOLAS) Service vessels**

Vessels intended for international service must now use structural fire protection materials that have been tested to the criteria in the FTP Code. Annex 3 of the FTP Code permits the continued acceptance of “established test procedures and acceptance criteria” for an interim period, to allow manufacturers adequate time to re-qualify their materials to the new fire tests. The Coast Guard has, therefore, determined that existing type approved materials that have been tested to the criteria in 46 CFR 164 and that have valid approval certificates are acceptable for use in the construction of SOLAS vessels with a keel laying date prior to 31 December 2003, as listed below:

<b>Material</b>	<b>New FTP Code Approval Series</b>	<b>Existing type approval series acceptable until 31 December 2003</b>
Deck assemblies (A-60, A-30, A-15)	164.105	164.005
Primary deck coverings	164.106	(None)
Structural insulation (A-60, A-30, A-15)	164.107	164.007, 164.006 (used as deck insulation)
Bulkhead panels (B-0 & B-15)	164.108	164.008 (installed according to NVIC 9-97)
Noncombustible materials	164.109	164.009
Continuous ceilings	164.110	164.010
Interior finish (bulkhead, ceiling, and floor coverings)	164.112	164.012
Fire doors	164.136	(None)
A-60, A-30, A-15 windows	164.137	(None)
Penetration seals (fire stops)	164.138	(None)
Dampers	164.139	UL 555 1-1/2 hr, tested for use in steel bulkheads

The FTP Code allows the interim use of existing materials that have been approved through prior “established test procedures and acceptance criteria”. It is the Coast Guard’s decision as the Administration, that materials previously accepted by:

1. construction specifications (e.g. minimum steel thickness); or
2. testing to building construction test standards (e.g. NFPA, ASTM, UL) not listed in 46 CFR;  
or
3. testing to IMO standards in effect prior to the FTP Code; or
4. policy letter, plan review or other acceptance where a type approval certificate was not issued

do not qualify as materials approved by “established test procedures and acceptance criteria” , and can no longer be used on the basis of their previous acceptance.

Specifically, the following materials and assemblies, when required to have particular fire performance characteristics, previously accepted by the Coast Guard will no longer be accepted for SOLAS vessels without testing to the FTP Code:

Carpeting  
Doors  
Windows  
Fabrics  
Cable, piping and HVAC penetrations  
Dampers (except as noted in the preceding table)  
Bedding  
Furniture upholstery

For information on approval of structural fire protection materials to the new FTP Code test standards, see our online structural fire protection guide at:

<http://www.uscg.mil/hq/g-m/MSE4/sfpguide.htm>.